Executive Summary

Introduction:

Regional haze is pollution that impairs visibility over a large region, including national parks, forests, and wilderness areas (many termed "Class I areas"). Regional haze is caused by sources and activities emitting fine particles and their precursors, often transported over large regions. Particles affect visibility through the scattering and absorption of light. Reducing fine particles in the atmosphere is an effective method of improving visibility.

An easily understood measure of visibility to most people is visual range. Visual range is the greatest distance, in kilometers or miles, at which a dark object can be viewed against the sky. However, the most useful measure of visibility impairment is light extinction, which affects the clarity and color of objects being viewed. The measure used by the regional haze rule is the deciview (dv), calculated directly from light extinction using a logarithmic scale.

The regional haze rule requires states to demonstrate reasonable progress toward meeting the national goal of a return to natural visibility by 2064. The rule directs states to graphically show what would be a "uniform rate of progress", also known as the "glide path" toward natural conditions for each Class I area within the State and certain ones outside the State.

Louisiana's Class I area:

The State of Louisiana has one Class I area within its borders, namely the *Breton National Wilderness Area (Breton).* Established in 1904, Breton is the second oldest refuge in the National Wildlife Refuge System, and is comprised of a series of barrier islands including Breton Island and all of the Chandeleur Islands which are located in St. Bernard Parish, Louisiana. President Theodore Roosevelt heard about the destruction of the birds and their eggs on the barrier island chain and soon afterward awarded it National Wildlife Refuge status. Breton was the only national refuge that Roosevelt ever visited. A graphic providing a temporal view of the barrier island chain is located at the end this Executive Summary which shows the degradation that has occurred due to tropical cyclone activity since 1998. See Figure 1.

The CAA amendments of 1977, especially Section 169A, established the protection of visibility in federal Class I areas as a national goal. In 1980, the EPA established a phased regulatory approach to visibility protection. The emphasis of the first phase was to remedy existing and future impairment caused by air emissions. These visibility protection regulations established long-range goals, a planning process, implementation procedures, new source review, and a monitoring strategy for all states containing Class I federal areas. While these regulations remain unchanged, the 1990 amendments of the CAA reaffirmed the importance of visibility protection.

Louisiana submitted a Part I Visibility Plan on October 9, 1985 that was approved by EPA in the June 10, 1986 Federal Register (51 FR 20967). The Louisiana State Implementation Plan (SIP) revision, "Protection of Visibility, Proposed Part II – Long Term Strategy," was approved by EPA in the December 19, 1988 Federal Register (53 FR 50958). The approved SIP met the requirements of 40 CFR § 51.302 and 51.306.

Section 51.308(d) directs each state to address regional haze not only for those Class I areas located within its political boundaries, but also those Class I areas that are located outside the political boundary which may be affected by emissions from within the State. The proximity of facilities in central and northern Louisiana could have a visibility impact on Caney Creek Wilderness Area in southwest Arkansas. Calpuff modeling has shown that, at the present time, these facilities bear no impact. However, Louisiana will continue to follow the protocol for permitting new construction and major modifications as is presented in our regulations as well as consultation with the appropriate state and federal agencies.

Regional Haze Plan Requirements:

The 1990 CAA Amendments together with EPA's Regional Haze Rule set the goal of reducing "man-made" impacts on visibility in Class I areas to zero (i.e., to "natural" conditions) by 2064 for the worst 20 percent visibility days and preventing any degradation for the best 20 percent visibility days. CENRAP and other Regional Air Planning Organizations have cooperated to calculate the base period (2000-2004) worst 20 percent and best 20 percent visibility for each Class I area. CENRAP is contracting projections of visibility impairment in 2018, the initial year for which each state's long-term strategy is to be evaluated. The state must reduce its visibility impairment impact at all Class I areas it impacts by as much as is reasonable.

Pursuant to the requirements of §51.308(a) and (b), Louisiana submits this SIP as adopted to meet the requirements of EPA's Regional Haze rules to comply with requirements set forth in the Clean Air Act Amendments of 1990. Elements of this SIP address the core requirements pursuant to §51.308 (d) and the Best Available Retrofit Technology (BART) components of §51.308(e). In addition, this SIP addresses regional planning, coordination with other States/Tribes and the Federal Land Manager, and contains a commitment to provide future SIP revisions and adequacy determinations. Louisiana has adopted this SIP in accordance with State laws and rules.

Further, this plan fulfills the requirements of Section 110(a)(2)(d)(i)(II) as it contains adequate provisions prohibiting "any source or other type of emission activity within the State from emitting any air pollutant in amounts which will interfere with measures required to be included in applicable implementation plans for this or any other State under part C to …protect visibility."

Figure 1: Temporal view of Chandeleur Islands1998, 2004 and 2006